

# RS3AF THRU RS3MF-HAF

## Surface Mount Fast Recovery Rectifier

Reverse Voltage - 50 to 1000 V

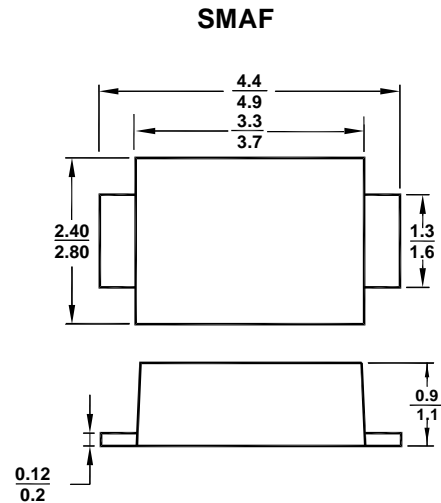
Forward Current - 3 A

### Features

- Glass Passivated Chip Junction
- For surface mounted applications
- Low profile package
- Fast reverse recovery time
- Halogen and Antimony Free(HAF), RoHS compliant

### Mechanical Data

- **Case:** SMAF
- **Terminals:** Solderable per MIL-STD-750, Method 2026



All Dimensions in mm

### Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	RS3AF	RS3BF	RS3DF	RS3GF	RS3JF	RS3KF	RS3MF	Units
	Marking	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	-
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T <sub>a</sub> = 65°C	I <sub>F(AV)</sub>	3							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	100							A
Maximum Forward Voltage at 3 A	V <sub>F</sub>	1.3							V
Maximum Reverse Current at Rated DC Blocking Voltage T <sub>a</sub> = 25°C T <sub>a</sub> = 125°C	I <sub>R</sub>	5 150							µA
Maximum Reverse Recovery Time at I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1 A, t <sub>rr</sub> = 0.25 A	t <sub>rr</sub>	150				250			ns
Typical Junction Capacitance at V <sub>R</sub> = 4 V, f = 1 MHz	C <sub>j</sub>	60							pF
Typical Thermal Resistance <sup>1)</sup>	R <sub>θJA</sub>	60							°C/W
Operating Junction and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	- 55 to + 150							°C

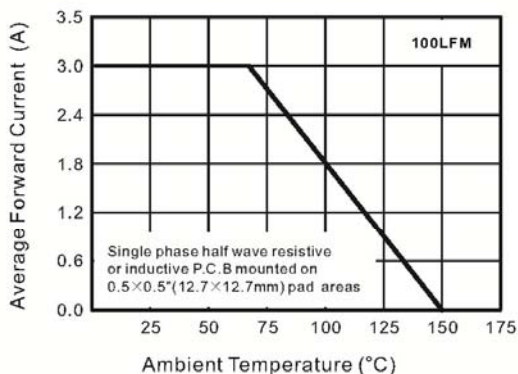
<sup>1)</sup> P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

**TOP DYNAMIC**

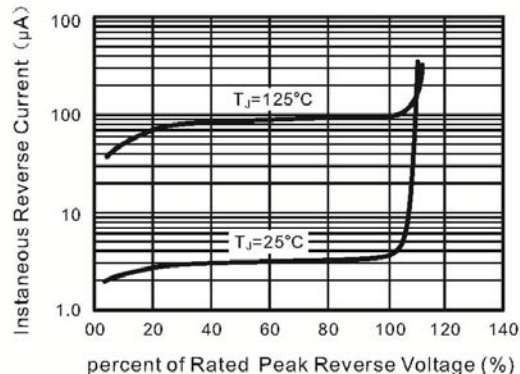


# RS3AF THRU RS3MF-HAF

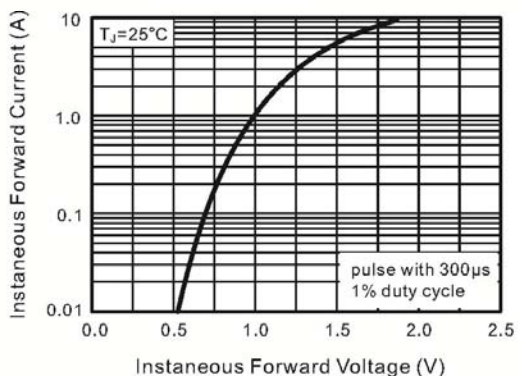
Forward Current Derating Curve



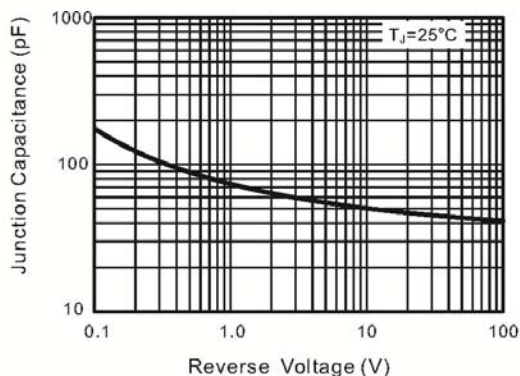
Typical Reverse Characteristics



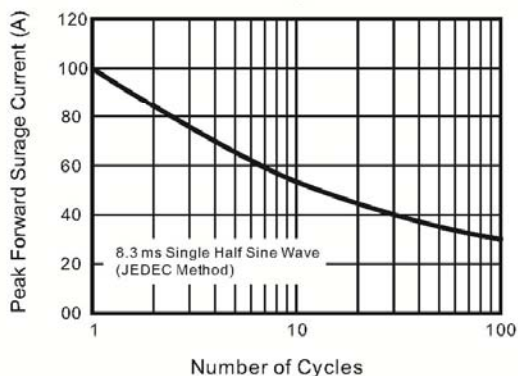
Typical Instaneous Forward Characteristics



Typical Junction Capacitance



Maximum Non-Repetitive Peak Forward Surge Current



TOP DYNAMIC

